DOCUMENT RESUME

ED 190 211 PS 011 420

AUTHOR Ross, Rhonda P.; And Others
TITLE Children's Television Commercials Containing Nutritional Information: When Do They Help? When Do They Hinder?
INSTITUTION Kansas Univ., Lawrence. Dept. of Human Development.
SPONS AGENCY Spencer Foundation, Chicago, Ill.
PUB DATE Mar 80
NOTE 12p.; Paper presented at the Biennial Meeting of the Southwestern Society for Research in Human Development (Lawrence, KS, March 27-29, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Age Differences; *Children; Cognitive Development; *Comprehension; Food; *Television Commercials; *Television Viewing
IDENTIFIERS Deception; Judgements (Focus of Study); Persuasibility

ABSTRACT

This study assessed the accuracy of judgments of 100 school-age children (5-11 years of age) as to the presence of real fruit content in three sets of cereals and beverages advertised on TV: real fruit, nonfruit, and artificially flavored products. In the baseline session accuracy increased with age, but children at each age misjudged the real fruit content of artificial fruit products. In the naturalistic viewing session children judged fruit content of 12 advertised products, six of which were embedded in a program and six for which advertisements were not shown. Control group children saw toy advertisements on TV, and then judged the 12 food products. Subsequently, children in both groups saw the same advertisements they had seen earlier, this time without the program and with instructions to attend to the messages carefully. Few significant changes were found between the baseline and naturalistic viewing sessions. Following instructions to attend carefully, accuracy of judgment of advertised artificial fruit products was lower than that of the baseline session among experimental group children. By contrast, accuracy, under instructions to attend carefully, was higher than in the baseline session both for control children's judgments of "advertised" products and for experimental children's judgments of products not advertised. (Author/SS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED190211

Children's Television Commercials Containing Nutritional Information: When Do They Help? When Do They Hinder?

Rhonda P. Ross

Toni A. Campbell

John C. Wright

and

Aletha Huston-Stein

Department of Human Development

University of Kansas

Lawrence, Kansas 66045

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Rhonda P. Ross
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS011420

This paper was presented at the Biennial Meeting of the Southwestern Society for Research in Human Development, Lawrence, Kansas March 29, 1980. The authors gratefully acknowledge support of this research by a grant from the Spencer Foundation to the Center for Research on the Influences of Television on Children (CRITC) of the Department of Human Development, University of Kansas.

Abstract

This study assessed the accuracy of judgments of 100 school age children as to the presence of real fruit content in 3 sets of cereals and beverages advertised on TV: real fruit, nonfruit, and artificially fruit flavored products. In the baseline session, accuracy was an increasing function of age, but children at each age were deceived about real fruit content of artificial fruit products. In session 2, the experimental group saw TV ads for 6 products imbedded in a program (naturalistic viewing). They then judged fruit content for these 6 advertised products, plus a matched set of 6 for which ads were not shown. Controls saw toy ads on TV, and then judged the same 12 products. In session 3, subjects in each group saw the same ads they had seen in session 2, without the program and with instructions to attend very carefully to messages in the ad (intensive viewing). They then judged all 12 products again. After naturalistic viewing, few significant differential changes from baseline were found. But after intensive viewing, accuracy of judgment of advertised artificial fruit products was lower than baseline among experimental group children. By contrast, accuracy was higher than baseline both for control children's judgments of "advertised" products and for experimental children's judgments of products not advertised. Baseline deception effects and additional deception as a consequence of intensive viewing of ads occurred despite: a) technical compliance of all ads with the NAB code, b) general skepticism about ads and fruit content that increased with age and across sessions, and c) general improvements in accuracy with age. Results are discussed in terms of the conditions under which developing cognitive capacities are not applied to interpretation of perceptually persuasive messages.

Children's Television Commercials Containing Nutritional Information: When Do They Help? When Do They Hinder?

Rhonda P. Ross, Toni A. Campbell
John C. Wright, and Aletha Huston-Stein
University of Kansas

Although children are heavily exposed to television commercials, many of which are for edible products, there is little research describing children's understanding of specific nutritional messages in food advertisements. Most of the research on developmental changes in children's understanding of advertisements is focused on their general comprehension of the purpose of advertising and the development of cynical responses to advertising (Robertson & Rossiter, 1974).

The purpose of our research was to examine children's understanding of nutritional information presented in television commercials. One type of nutritional information sometimes provided in a food advertisement is whether the product contains, or is made from, fruit. From a nutritional standpoint, it could be argued that those products which contain fruit are healther for children than comparable products which do not contain fruit. In advertistements, descriptions of the "fruitiness" of products often are ambiguous or contradictory and some of the production techniques used appear likely to confuse the child viewer about fruit content. For instance, do children distinguish between the phrases "contains bits of real fruit" and "has real fruit flavor?" When rhymes and jingles use the word "fruit" do children conclude that the product must contain fruit? With regard to visual techniques, when fruit is shown on the package or elsewhere in the

visual portion of an advertisement, do children conclude that the product contains fruit, regardless of what is said in the advertisement? In the present study, the effects of advertisements for products containing real fruit, artificial fruit flavor, and no fruit on children's understanding of product content were compared.

Method

Design

One hundred boys and girls, five to eleven years old, were randomly assigned to an experimental or control group. The experimental group saw commercials for six products: two products containing real fruit, two containing artificial fruit flavor, and two without fruit. In each pair, one product was a cereal and one was a beverage. The control group saw six toy commercials.

Measure of product knowledge

Children were asked to judge whether each of 12 foods was made with fruit: the six foods advertised in the commercials seen by the experimental group, and a comparable set of six other foods frequently advertised on television, but for which no advertisements were shown in this study. For each item, the children were shown the product in its original package, and asked whether fruit was used to make the product. Children responded to the question by placing a photograph of the product in either a "fruit," "no fruit," or "don't know" container. Responses for each item were coded for accuracy. For the real fruit products, a response of "fruit" was coded as correct; for the artificial fruit and nonfruit products, a response of "no fruit" was coded as correct.

Procedure

Each child participated in three sessions. In the first session no advertisements were shown; only the product knowledge measure was administered. The purpose of this first session was to assess the children's baseline knowledge regarding the fruit content of these 12 products. In the second session, children watched approximately ten minutes of television, consisting of six 30-second commercials embedded in a segment of a television program. For the experimental group these were the six "advertised food products"; for the control group, toy commercials were shown. Following viewing, the product knowledge task was administered. This was a "naturalistic viewing" session in the sense that the commercials were shown in the context of a television program. In the last session, session 3, children saw the same ads they had seen in session 2, but without the program and with instructions to watch and listen carefully.

After each commercial, the tape was stopped. Children in the experimental group then judged whether the product advertised was made with fruit. The control group classified one of these six products immediately after seeing each toy commercial. This procedure was repeated for each of the six advertised products. Both groups then classified the six nonadvertised products without seeing additional commercials. In summary then, the study was designed so that the effects of advertisements on product knowledge could be compared in three ways: a comparison of seeing food advertisements vs. seeing toy advertisements (i.e., the experimental vs. the control group comparison); a comparison of the experimental group's responses to the six products they saw advertisements for vs. the six matched, but nonadvertised products, and finally a comparison of the children's responses in the second session, and the third session compared to their baseline know-

ledge, as measured in the first session. Four analyses of variance plus an analysis of baseline data were performed. The cells included in each analysis and a summary of the design are shown on Table 1 of your handout. The figures on the last page of your handout show the results of these analyses.

Insert Table 1 and Figure 1 about here

Results and Discussion

As you can see from the figures, the most obvious effect, throughout the data is that children are misinformed about the contents of artificial fruit products. For all subjects (experimental and control), all products (advertised and not advertised), and all sessions (baseline, naturalistic and intensive viewing) artificial fruit products were rated less accurately than real and nonfruit items. Although older children were more accurate than younger children, they too were less informed about the fruit content of the artificial fruit than the other products. The cause of this widely held, but mistaken, belief is not known, but may be due to some combination of previous exposure to advertisements, packaging, and experience with these products. Whatever the cause, children as old as 10, and 11, were rather uniformly inaccurate regarding the nature of artificial fruit products.

A second finding was that the viewing of advertisements for artificial fruit products increased children's misjudgment that they contained fruit. Accuracy of judgment of advertised artificial fruit products was about constant from session 1 to session 2, but declined significantly after the intensive viewing session. Ratings of these same products by the control group generally improved, rather than declined. Similarly, the experimental

group's ratings of the nonadvertised artificial fruit products also tended to improve. Seeing the advertisements for the artificial fruit products clearly hindered the children's ability to accurately judge whether the product was made with fruit.

This study was not designed to determine the precise features of the advertisements responsible for the treatment effects found, but we can speculate on some of the influential features by considering the narrative and visual content of the commercials.

Advertisements for the artificial fruit products used narrative techniques such as incomplete comparatives, implied attributes, and slogans containing the word, "fruit." Apparently, children believed the implied rather than the literal message of these ambiguous commercials. In contrast, commercials for real fruit products were straightforward. For these products, the commercials helped the children. Accuracy improved on the real fruit products in session 3. Children seem to be quite capable of extracting factual information when it is presented in a straightforward manner.

The artificial fruit result may also be due to the predominance of visual over auditory information. Although narration in the ads for artificial fruit products disavowed the presence of real fruit in the product, the visual portrayals displayed a variety of fruits. It is reasonable to infer that children, particularly in the younger age groups, relied on the visual presentation for information about product content, with the result that they believed that the pictures accurately depicted the contents of the products.

The drop in accuracy for advertised artificial fruit foods was not limited to subjects in the youngest experimental group, but was true for

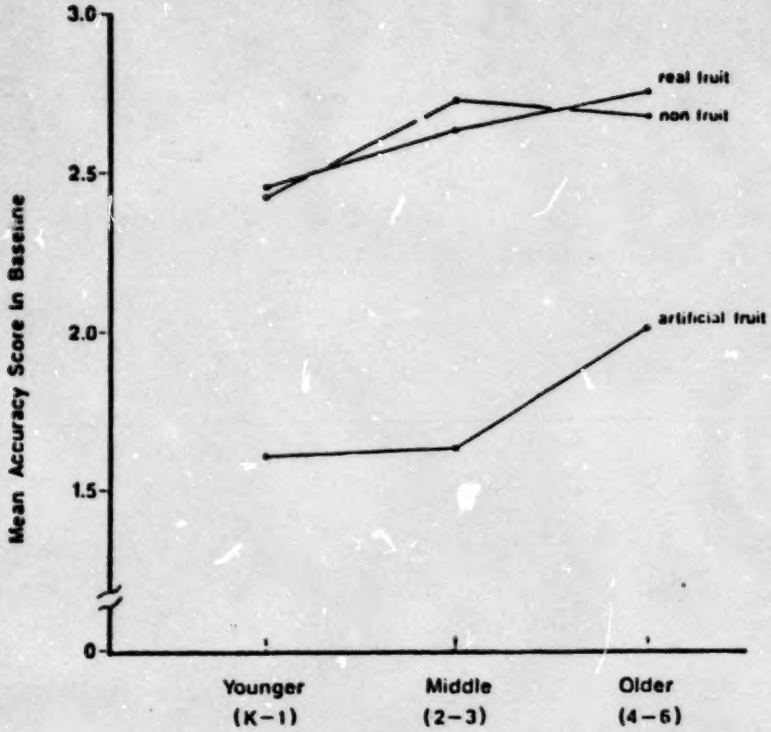
all age groups in the experimental condition. The fact that ads for these foods were successful in overcoming the "cognitive defenses" of older subjects bears directly on the current debate surrounding federal regulation of advertisements designed for child audiences. One of the more frequent arguments against a change in policy is that, with age, children develop a cynical attitude toward commercials which will protect them against being misled by advertisements. Several studies (Bever, Smith, Bengen, & Johnson, 1975; Robertson & Rossiter, 1974) suggest that this type of cynicism is well developed by age 11. In this study, even though older children were better informed and should have had better defenses against commercials than younger children, they were still susceptible to the advertising techniques associated with the merchandising of the artificial fruit products and cynicism did not function to protect them from ambiguous claims.

The degree to which children use their general cognitive abilities in particular complex situations is important in understanding the development of children's thought in general as well as to the specific area of children's responses to advertising. The present study provides one case in which older children's capacities for skepticism and cynicism were not applied when they responded to a particularly persuasive stimulus situation. It suggests a need for more detailed explorations of the conditions under which children do and do not apply their cognitive capacities to interpret information presented to them in a variety of forms, including television advertisements.

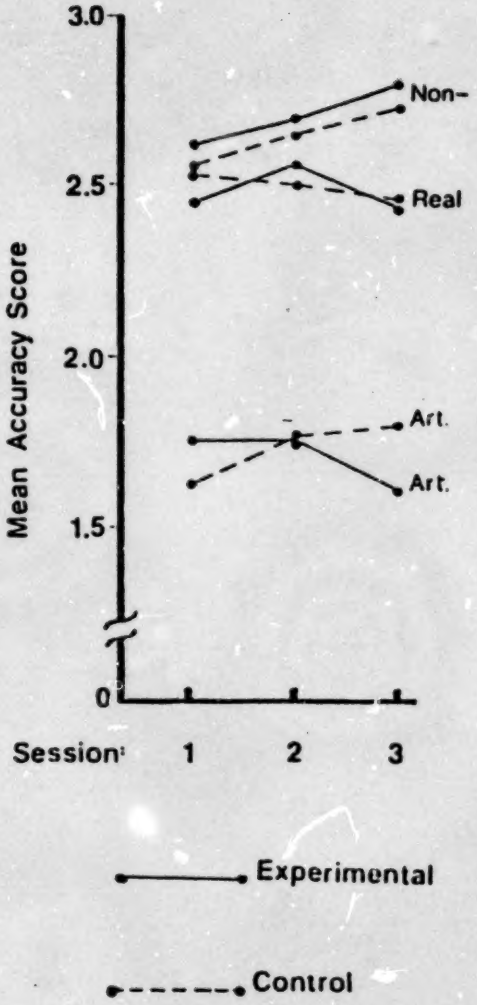
Table 1. Summary of Design and Analyses

Product Categories: one cereal and one beverage in each category	Experimental Group (26 boys; 23 girls) (saw ads for advertised products)			Control Group (26 boys; 25 girls) (saw ads for toys)		
	Session 1 Baseline	Session 2 Naturalistic	Session 3 Intensive	Session 1 Baseline	Session 2 Naturalistic	Session 3 Intensive
Advertised Products:						
Real Fruit	A, B, C, D	A, C	B, D	A, B	A	B
Non Fruit	A, B, C, D	A, C	B, D	A, B	A	B
Artificial Fruit	A, B, C, D	A, C	B, D	A, B	A	B
Non-advertised Products:						
Real Fruit	C, D	C	D	X	X	X
Non Fruit	C, D	C	D	X	X	X
Artificial Fruit	C, D	C	D	X	X	X

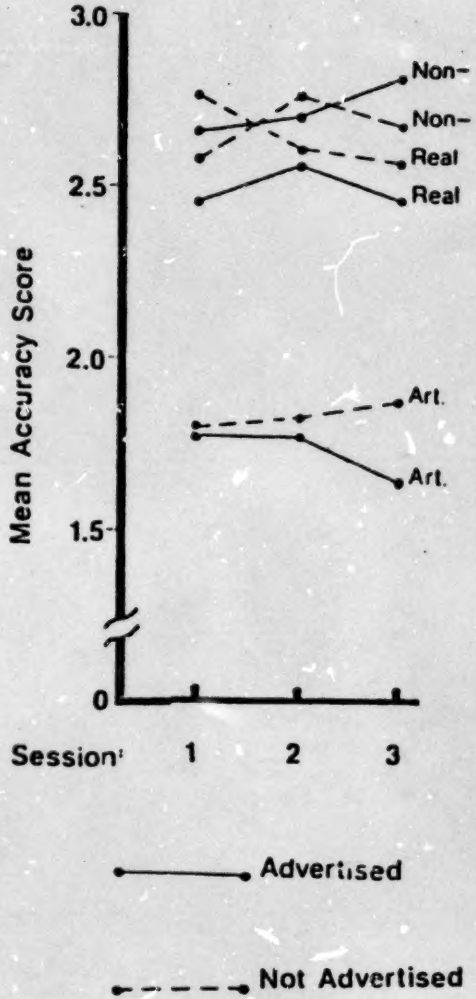
Note: Four analyses of variance (labeled A, B, C, and D), plus an analysis of baseline (Session data only, were performed. Entries indicate in which analyses the data from each cell were included. The entry, X indicates data not entered in one of the four main analyses.



Mean accuracy score in baseline (session 1) as a function of age group and fruit content.
(All subjects, N=100; All products)



Mean accuracy score by session, experimental condition, and fruit content.
(All subjects, N=100; Advertised products only)



Mean accuracy score by session, advertisement, and fruit content.
(Experimental group only, N=49 All products)